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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/695,068

10/28/2003

J. Stewart Young

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01/28/2011

MEDTRONIC

Attn: Noreen Johnson - IP Legal Department

2600 Sofamor Danek Drive

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EXAMINER

COTRONEO, STEVEN J

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

01/28/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/695,068	Applicant(s) YOUNG ET AL.	
	Examiner STEVEN J. COTRONEO	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/16/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10-18,21 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10-18,21 and 31-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

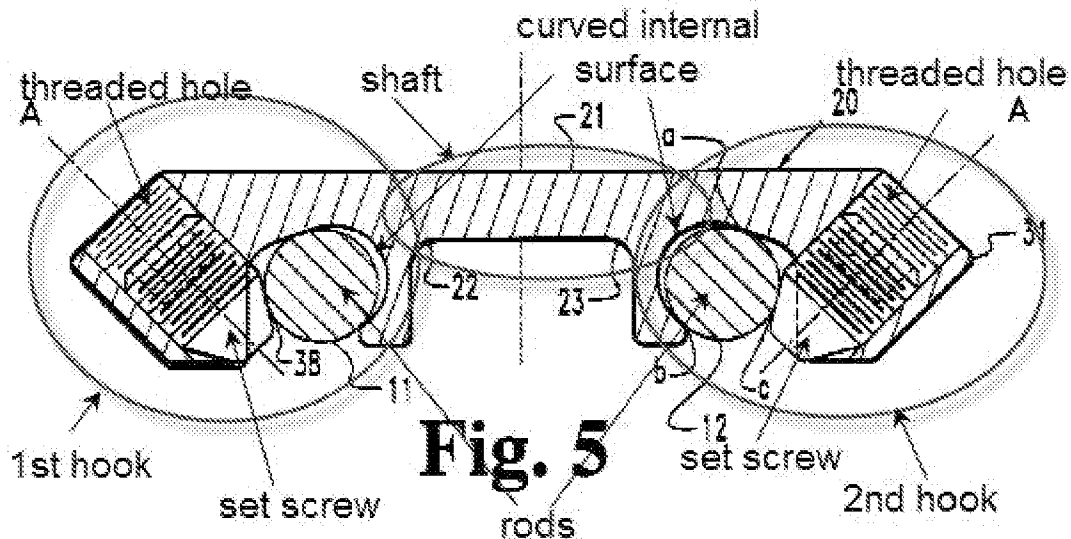
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 7, 8, 10-18, 21, 31-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeck et al. (US 6,136,003) in view of Faulkner (US 3,399,433)

Hoeck et al. discloses a vertebral support apparatus (see fig 5 below), the apparatus comprising: first and second spinal rods (fig 5, 11 and 12); a solid non-hollow shaft (fig 5, 21) the shaft is solid across the entire cross-section of the shaft and includes no internal cavity. A first hook (see fig 5 below) including a first internal surface has a curved portion, the first rod contacting the first internal surface. A second hook (see fig 5 below) including a first end unitary and integral with the shaft at a position axially displaced from the first hook, the second hook terminating at a second end spaced laterally from the shaft and comprising a second internal surface having a curved portion. The shaft includes a first threaded hole (see fig 5 below) associated with the first hook, and a set screw (fig 5, 38) extends through the first threaded hole contacting the first rod and forcing the first rod against the first internal surface. The shaft includes a second threaded hole (see fig 5 below) associated with the second hook. The shaft defines a substantially planer plate (see fig 5 below). The apparatus is

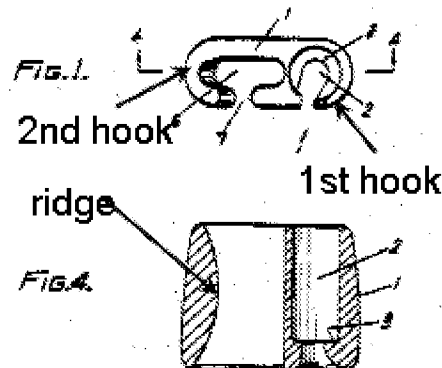
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formed as one piece and is a permanent and non-adjustable. **The rods form a rigid assembly (col. 1, ll. 30-35).**



Hoeck et al. does not disclose including a ridge extending along the curved portion in a direction from the first end to the second end.

Faulkner discloses including a ridge (see fig 1 and 4 below) extending along the curved portion in a direction from the first end to the second end to allow for the opening in the hook to be large enough to easily insert the rod into the hook (col. 2, ll. 10-15). The ridge (fig 4, 6) is formed as first internal surface and a second internal surface that intersect in a first and second direction oblique direction (see fig 2E below). The ridge allows for the two rod to be placed in a non-parallel arrangement (fig 6).



It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the device of Hoeck et al. with a ridge extending along the curved portion in a direction from the first end to the second end in view of Faulkner in order to allow the hook to be wide enough to allow for the rod to be inserted into the hook. **The rod is compressed against the ridge when the screw of Hoeck is inserted when the ridge is located in section a.**

With regard to the acute and obtuse angles of the ridge Faulkner discloses the ridge is orthogonal to the first curve, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have constructed the ridge as being obtuse or acute, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeck et al. (US 6,136,003) in view of Faulkner (US 3,399,433) and further in view of Lombardo (US 6,238,396).

Hoeck et al. in view of Faulkner discloses the claimed invention except for the shaft having a round or oval cross-sectional profile and the shaft being curved. Hoeck et al. in view of Faulkner does disclose a shaft that is used to connect two hooks (fig 3, 5)

Lombardo discloses a spinal device that comprises hooks (fig. 12A) that comprises a shaft that has a round profile (fig 12A, 73) that can be either straight or curved (fig 12A-C). The shaft is used to connect two hooks.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have substituted the shaft of Hoeck et al. in view of Faulkner with any of the shafts of Lombardo in order to achieve the predictable result of connecting two hooks.

Response to Arguments

Applicant's arguments filed 11/16/2010 have been fully considered but they are not persuasive. The applicant argues that Faulkner is non-analogous art, Arguing that it is for a clip for a flexible cable. The examiner respectfully disagrees. In response to applicant's argument that Faulkner is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Faulkner is concerned with providing a clip that is capable of receiving an elongated member. The rigidity of the elongated member is not a factor in the design of the clip itself. The clip is designed to be wide enough with the ridge to allow an elongated member to be inserted

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into and then maintained in the clip (col. 2, ll. 10-15). This allows the rods of Hoeck to be inserted more easily which would reduce surgery time. Hoeck is also in the field of a clip to attach to an elongated member therefore they are in the same field of endeavor.

The applicant also argues that the rod is not compressed against the ridge. Figure 4 above shows the portion the examiner is relying on to be the ridge and in figure 6 it is clear that the elongated member is located against the ridge. The applicant argues that the member is not against the crest of the ridge. This argument seems to be against the applicant's disclosure. Figure 28 shows the rod against the ridge in the current application. In Figure 28 the rod is not located on the apex of the ridge as the applicant is arguing but appears to be similar to figure 6 of Faulkner.

With respect to claim 7 the applicant argues that rods do not lie non-parallel to each other. The examiner respectfully disagrees. Figure 6 of Faulkner clearly shows that with the ridge that two members would lie non-parallel.

With respect to claim 8 the applicant argues that the rods do not lie in different planes. The examiner respectfully disagrees. The rods can be located in two different planes that are going transverse to the paper.

The applicant also argues that the rods are not rigid. The examiner respectfully disagrees. The rods of Hoeck are rigid as the applicant stated on page 11 of the current response. Faulkner is being used for the clip design not the rod design.

The applicant argues that rod is not against the crest of the raised ridge but located in the undercut. As stated above the length of figure 4 is the ridge and the rod of Faulkner is shown located as close to the crest as applicants own figures show.

With respect to claims 14-16 the applicant argues that the angular relationship of the curves is not obvious factors. The examiner respectfully disagrees. Faulkner discloses curved surfaces but does not disclose the angles. Changing the angles however would change the width of the ridge and change the ability of a rod to be maintained in the ridge. Adjusting the angle would therefor allow some on of ordinary skill in the art at the time of the invention to find the optimal angles that allow the clip to receive and maintain the rod.

The rejections are deemed proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN J. COTRONEO whose telephone number is (571)270-7388. The examiner can normally be reached on M-F 730-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J. C./

Examiner, Art Unit 3733

/EDUARDO C. ROBERT/

Supervisory Patent Examiner, Art Unit 3733